

SR 520 Operations, Maintenance, and Rehabilitation

Paula Hammond, P.E. Secretary

David L. Dye, P.E. Deputy Secretary

Steve Reinmuth
Chief of Staff

Daniel Babuca, PE

Engineering Manager

Craig Stone, PE
Toll Division Director

Washington State Transportation Commission May 19, 2010



Presentation Agenda

- Explain relationship between operations and maintenance (O & M) and toll rate setting discussion
- Quick update on SR 520 preferred alternative
- Overview of facility O & M and repair and rehabilitation (R & R) activities
- Overview of toll collection O & M and R & R activities
- Next steps

Funding O & M and R & R with Toll Revenue

- O&M and Toll Collection
 System R&R costs are incurred prior to debt service.
 - Affects net revenue available for financing
 - Typically required by investors
- Non-Toll Collection System R&R costs are incurred after debt service.

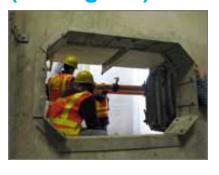


What Are O & M Activities?

The <u>routine</u>, ongoing activities required to:

- Prolong the useful life of the facility and related assets
- Keep traffic moving safely and efficiently
- Ensure continued, uninterrupted revenue operations

Bridge/roadway maintenance (M Program)





Traffic operations (Q Program)





Toll collection operations

(B Program)





What are R & R activities?

The <u>periodic</u> repair & rehabilitation of capital facility inventory. (P Program)

Examples of facility R&R

- Repaving
- Replacing guardrail
- Replacing ITS
- Replacing anchor cables

Examples of toll collection R&R

- Upgrading toll collection software
- Replacing toll collection hardware
- Replacing field hardware







SR 520 News: Preferred Alternative in Seattle

Preferred Alternative Overview





Key O & M and R & R Features: I-5 to West Approach

Exi	sting	Proposed
Lanes	Four general-purpose	Four general-purposeTwo transit/HOVOne bicycle/pedestrian regional trail
Lane width	One 11-foot, one 12-foot general-purpose	Two 11-foot general-purposeOne 12-foot transit/HOV
Shoulders	One 2-foot outside shoulderOne 1-foot inside shoulder	 One 8 to 10-foot outside shoulder One 2 to 4-foot inside shoulder
Bascule bridge	Single bascule bridge	Two bascule bridges
Other	No stormwater treatment	 Two ATM gantries Reversible direct-access ramp to I-5 Two lids, including one lid at Montlake that is approximately 1,500 feet long Extensive stormwater treatment/management features Noise reduction features

Key O&M and R&R features: Floating Bridge

Exis	sting	Proposed
Lanes	Four general-purpose	Four general-purpose Two transit/HOV One bicycle/pedestrian regional path
Lane width	One 11-foot, one 12-foot general-purpose	Two 11-foot general-purpose One 12-foot transit/HOV
Shoulders	One 2-foot outside shoulderOne 1-foot inside shoulder	One 10-foot outside shoulderOne 4-foot inside shoulder
Anchors and cables	 58 anchors 2-inch diameter cable x 500 feet long 	 58 anchors 3-inch diameter cable x 750 feet long
Other	Draw span No stormwater treatment	No draw span Maintenance facility and dock Two ATM gantries Extensive stormwater treatment/management features (including catch basins)

Key O&M and R&R features: Eastside

Existing

		PAINVEATHER TOPN OF COTY TOPN OF LAND WITH A PROPERTY OF LAND AND A POINT TOPN OF COTY TABLES OF LAND AND A POINT TOPN OF COTY TABLES OF LAND AND A POINT TOPN OF COTY TOPN OT
Lanes	Four general-purposeOne transit/HOV (incomplete)	Four general-purposeTwo transit/HOVOne bicycle/pedestrian regional path
Lane width	Two 11-foot general-purpose	Two 11-foot general-purpose One 12-foot transit/HOV
Shoulders	One 1-foot outside shoulder One 1.5-foot inside shoulder	One 10-foot outside shoulder One 10-foot inside shoulder
Other	No stormwater treatment	 6-7 ATM gantries Three lids with formal landscaping Two transit stops 10 fish passage culverts Noise walls Extensive stormwater management/treatment features Corridor landscaping

Proposed



Traffic Operations



- Active Traffic Management (ATM)
- Incident Response Team (IRT)
- Traffic Management Center (TMC)

R & R Overview – Sample Life Info

Activity	Frequency
PCC Pavement	25 yrs
HMA Pavement	10 yrs
Anchor Cables	20 yrs
Active Traffic Management	15 yrs



Key players:

Project engineer and maintenance superintendents

Key steps:

- Task force to review and validate data
 - Historical for existing and projected for new corridor
- Refine data to match scope of preferred alternative and expectations for maintenance



Toll Collection Operations



Toll Collection System





Customer Service Center



State Operations

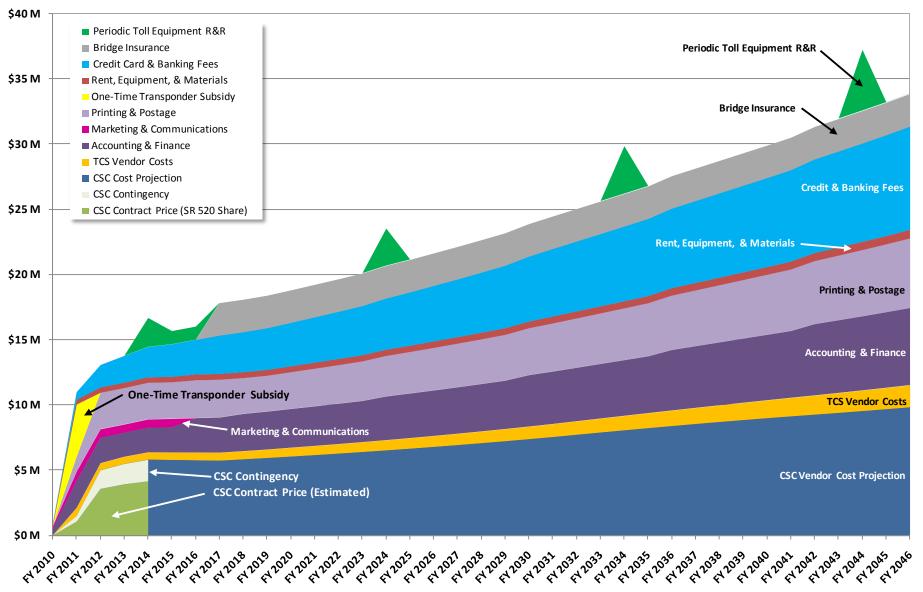


Toll Collection Systems O&M and R&R

- Annual O&M costs based on vendor bids received in April 2010 for the new TCS contract, which includes:
 - Field maintenance
 - System administration
 - Electronic toll collection application maintenance
- Periodic Toll Collection System R&R costs
 - Equipment assumed to be replaced on a 10-year cycle
 - Required to maintain continuous revenue operations
 - Paid from toll revenues in the same manner as routine toll collection
 O & M costs and prior to annual debt service



SR 520 Toll Collection O&M Cost Components — FY 2010-46



Note: Adjudication costs not included in toll collection O&M cost projections, as they are assumed to be paid by the SR 520 Civil Penalty Account and not by toll revenues.



Efficiencies / Economies of Scale

One Customer Service Center for all tolled facilities:

- SR 520
- Tacoma Narrows Bridge
- SR 167
- Any additional future toll facilities

Uniform message on how to pay tolls

Next Steps

- Complete our O & M and R & R cost estimation validation process.
- Early June: Report back to Commission on O & M and R & R cost estimates to be included in toll rate setting discussions.

Questions?

For more information on SR 520 Operations, Maintenance, and Rehabilitation please contact:

Craig Stone Toll Division Director (206) 464-1222 stonec@wsdot.wa.gov Julie Meredith SR 520 Program Director (206) 770-3568 meredjl@wsdot.wa.gov

